

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P583591

Luminaire Tested: **HC807D010-HM80520830-81WWW**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583591
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC807D010-HM80520830-81WWW
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 846.6 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.09 / 1.04 / 1.13
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

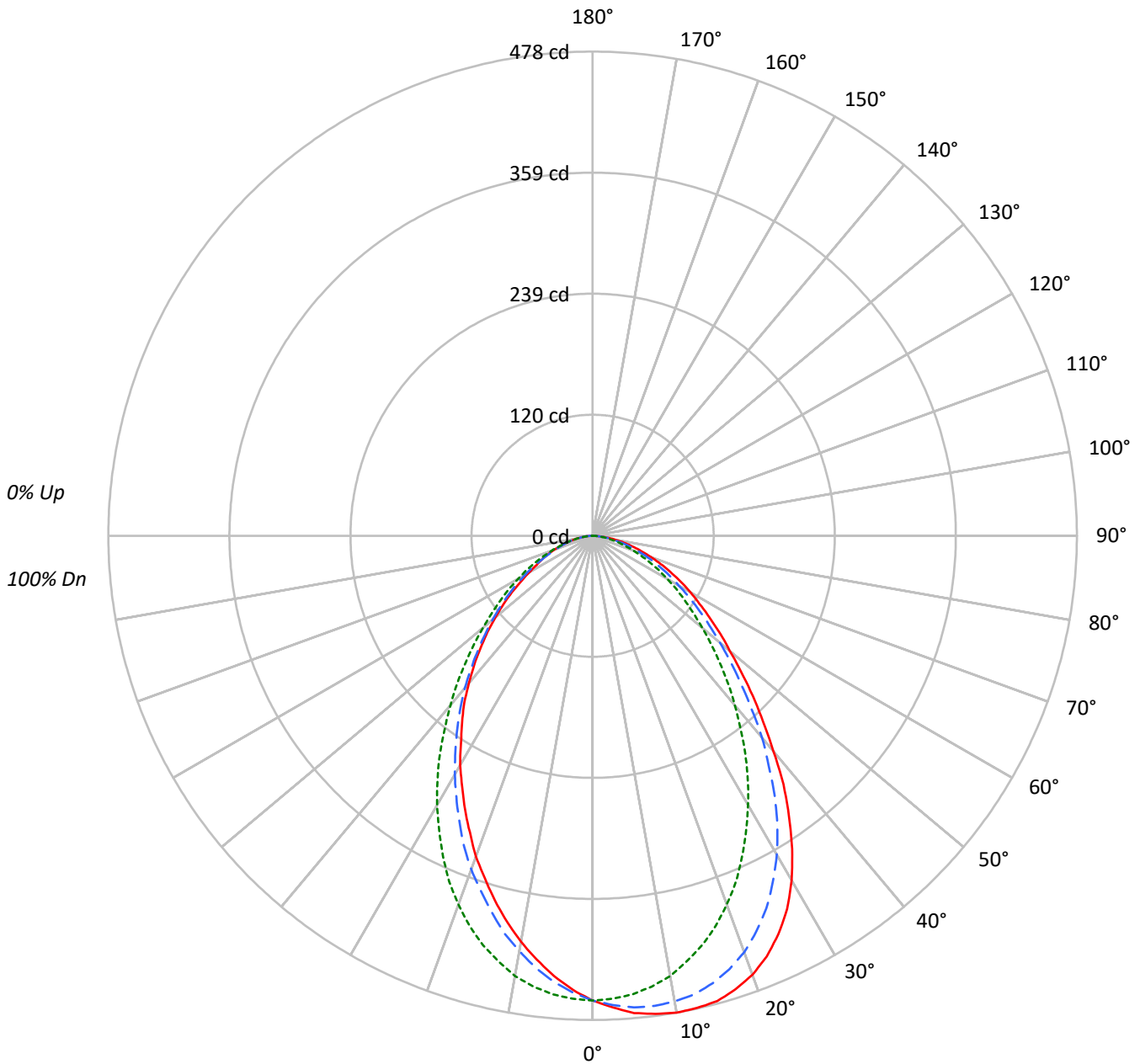
Input Watts (W): 8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87								
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76								
3	94	85	78	72	92	83	77	71	81	75	70	78	73	69	75	71	68	66								
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	68	64	60	58								
5	81	69	61	55	79	68	61	55	66	60	54	64	59	54	63	57	53	51								
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46								
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41								
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38								
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34								
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14148	14148	14148
5°	14641	14062	13505
10°	14967	13818	12744
15°	15180	13351	11901
20°	15134	12706	11052
25°	14760	11881	10146
30°	13983	10928	9311
35°	12720	9889	8459
40°	11174	8791	7644
45°	9747	7732	6812
50°	8477	6774	6001
55°	7564	5957	5226
60°	6870	5218	4453
65°	6173	4546	4042
70°	5491	3868	3651
75°	4825	3265	3122
80°	4102	2646	2752
85°	3078	1981	2194



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.0	5.1
10°-20°	118.4	14.0
20°-30°	164.3	19.4
30°-40°	169.9	20.1
40°-50°	142.3	16.8
50°-60°	103.3	12.2
60°-70°	65.2	7.7
70°-80°	32.3	3.8
80°-90°	8.0	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	325.7	38.5
0°-40°	495.6	58.5
0°-60°	741.1	87.5
0°-90°	846.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	846.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	459	459	459	459	459	
5°	473	467	454	442	436	45
15°	476	457	418	385	373	134
25°	434	406	349	311	298	199
35°	338	313	263	233	225	210
45°	224	207	177	160	156	173
55°	141	128	111	102	97	127
65°	85	74	62	55	55	84
75°	40	34	27	26	26	43
85°	9	7	6	6	6	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8
2.5°	466.2	466.2	466.8	466.2	466.2	466.2	465.6	465.6	465.0	465.0	463.7
5°	473.0	471.8	473.0	471.8	471.8	471.8	471.2	469.9	469.3	468.1	467.4
7.5°	476.1	475.5	475.5	474.9	474.9	474.3	473.7	473.0	470.6	469.9	468.1
10°	478.0	477.4	477.4	476.8	475.5	475.5	474.3	473.7	470.6	469.3	466.8
12.5°	477.4	477.4	477.4	476.8	474.9	474.3	473.0	471.2	468.7	466.2	463.7
15°	475.5	475.5	474.3	473.7	471.8	470.6	469.9	466.8	464.3	461.2	457.4
17.5°	469.3	469.3	468.7	467.4	465.6	464.3	463.1	460.0	457.4	452.4	448.7
20°	461.2	460.6	460.0	458.0	456.3	455.7	453.7	449.3	446.2	442.5	437.5
22.5°	449.3	448.7	448.1	446.9	443.8	442.5	441.3	438.2	432.6	428.9	422.6
25°	433.8	433.8	432.6	430.7	427.6	426.4	424.5	421.4	416.3	410.8	405.8
27.5°	415.7	415.1	413.2	412.0	409.5	407.6	404.5	400.8	395.9	391.5	385.3
30°	392.7	392.7	391.5	389.6	386.5	385.3	382.8	378.5	373.4	367.8	363.5
32.5°	366.6	366.6	364.7	363.5	361.6	358.5	357.9	352.9	348.6	344.2	339.3
35°	337.9	338.5	337.3	334.8	331.7	331.7	330.5	326.1	321.2	316.8	313.1
37.5°	309.4	307.5	306.9	305.6	303.8	301.3	299.9	298.2	293.7	290.6	285.0
40°	277.6	278.2	277.0	275.7	275.1	273.2	272.6	269.5	266.4	262.7	260.2
42.5°	248.9	248.9	248.9	247.7	246.5	244.6	244.0	242.1	238.4	235.9	232.2
45°	223.5	221.6	221.6	221.0	220.4	219.0	217.3	215.9	213.4	211.6	207.2
47.5°	198.5	199.2	198.5	197.9	196.1	195.4	194.8	192.3	189.9	188.0	184.9
50°	176.7	178.1	176.7	176.7	175.5	174.9	173.6	171.8	169.9	166.8	163.7
52.5°	158.7	158.7	158.1	157.5	155.6	154.4	153.7	153.1	150.0	147.5	145.1
55°	140.7	141.2	141.2	139.5	138.7	137.5	136.9	135.0	133.8	130.1	128.2
57.5°	125.1	124.5	125.1	123.8	122.6	121.4	120.7	119.5	117.6	115.2	112.7
60°	111.4	110.2	110.2	109.6	108.3	107.7	106.5	104.6	102.7	100.3	98.3
62.5°	97.8	97.2	96.4	95.8	94.6	93.9	93.3	91.5	89.6	87.7	85.9
65°	84.6	84.6	84.0	82.8	82.2	81.5	80.9	79.7	77.2	75.9	74.1
67.5°	72.8	72.2	72.2	71.0	69.7	69.1	69.1	67.9	66.0	64.1	62.9
70°	60.9	61.7	60.9	60.3	59.2	59.2	57.8	57.2	54.7	54.1	52.3
72.5°	50.4	50.4	49.8	49.8	48.5	47.9	47.9	46.7	45.4	44.2	42.9
75°	40.5	40.5	40.5	39.8	39.2	38.0	38.0	37.4	36.1	34.9	33.6
77.5°	31.8	31.1	31.1	30.5	29.9	29.3	29.3	28.7	27.4	26.8	25.6
80°	23.1	22.5	22.5	22.5	21.2	21.7	21.2	20.6	20.0	19.2	18.6
82.5°	14.9	15.5	15.5	14.9	14.3	14.3	14.3	13.7	13.7	13.0	12.4
85°	8.7	8.7	8.7	8.7	8.1	8.1	8.1	7.5	7.5	7.5	6.8
87.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.1	3.1	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8
2.5°	463.7	462.5	461.9	461.2	461.2	460.6	460.0	458.8	458.8	457.4	456.8
5°	466.2	464.3	463.1	461.9	461.2	460.0	458.8	456.8	456.3	454.3	452.4
7.5°	466.8	463.7	462.5	460.0	458.8	457.4	454.9	453.1	450.6	448.7	446.2
10°	464.3	461.9	458.8	455.7	454.9	453.1	449.3	446.9	443.8	441.3	437.5
12.5°	460.6	456.8	453.7	450.0	448.1	446.2	442.5	438.8	434.4	430.1	426.4
15°	454.3	450.0	445.6	441.3	438.8	436.9	432.6	428.2	423.9	418.2	414.5
17.5°	445.0	440.0	435.7	430.1	427.6	425.8	420.2	415.1	409.5	403.9	400.2
20°	433.2	427.0	422.0	415.7	413.9	410.8	405.2	399.6	393.4	387.2	382.8
22.5°	417.7	411.4	405.8	399.6	396.5	393.4	387.8	381.0	374.6	369.7	365.3
25°	399.6	394.0	387.2	381.6	377.7	374.0	367.8	362.2	356.6	349.2	344.8
27.5°	379.7	372.8	367.8	360.4	356.6	354.2	347.3	339.9	334.8	328.0	323.0
30°	357.3	351.1	345.5	337.9	334.2	331.7	325.5	318.7	313.7	306.9	301.9
32.5°	333.6	326.7	319.9	314.9	310.6	308.1	301.3	296.8	290.6	285.0	279.5
35°	308.1	301.3	296.2	289.4	286.9	284.4	278.8	273.2	267.7	262.7	258.2
37.5°	280.7	275.7	270.1	265.2	263.3	260.7	253.9	248.9	244.6	239.6	235.9
40°	253.9	249.6	245.8	240.9	237.8	235.9	230.9	226.6	221.6	218.4	214.7
42.5°	229.7	224.7	221.0	217.3	214.1	212.2	207.9	204.8	201.0	197.9	193.6
45°	204.1	201.7	197.3	194.2	192.3	189.9	186.8	183.0	179.8	177.3	174.2
47.5°	181.8	179.2	176.1	172.4	171.1	169.3	166.2	163.7	161.2	158.7	155.6
50°	161.2	158.1	155.6	153.1	151.9	150.0	146.9	145.7	143.8	141.2	139.5
52.5°	142.6	140.1	137.5	134.4	133.8	132.5	130.7	128.2	126.3	125.1	123.8
55°	125.7	123.2	121.4	118.9	118.3	117.0	114.5	113.3	112.1	110.8	109.6
57.5°	110.8	108.3	105.8	104.6	103.4	102.1	101.5	99.5	98.3	97.8	96.4
60°	97.2	94.6	92.7	90.8	90.2	89.6	88.4	87.1	85.9	84.6	84.0
62.5°	84.0	81.5	80.3	79.0	77.8	77.8	76.6	75.3	74.1	73.5	72.2
65°	72.2	71.0	69.1	67.3	66.6	66.6	64.8	64.1	63.5	62.3	60.9
67.5°	60.9	59.8	57.8	57.2	56.6	56.0	55.4	54.1	52.9	52.3	51.0
70°	51.0	49.8	48.5	47.9	47.3	46.7	45.4	44.8	43.6	42.9	42.3
72.5°	41.1	40.5	39.2	38.6	38.0	37.4	36.7	36.1	34.9	34.2	33.6
75°	33.0	32.4	31.1	30.5	29.9	29.9	29.3	28.0	27.4	27.4	26.8
77.5°	24.9	24.3	23.7	23.1	22.5	22.5	21.7	21.2	20.6	20.6	20.0
80°	18.0	17.4	16.8	16.8	16.8	16.1	15.5	15.5	14.9	14.9	14.3
82.5°	11.8	11.8	11.2	11.2	11.2	10.6	10.6	9.9	9.9	9.9	9.9
85°	6.8	6.8	6.8	6.2	6.2	6.2	6.2	6.2	6.2	5.6	6.2
87.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8
2.5°	456.3	455.7	454.3	454.3	453.1	453.1	452.4	451.8	451.2	450.6	450.0
5°	451.8	449.3	448.1	447.5	446.2	445.6	443.8	442.5	441.9	440.7	439.4
7.5°	443.8	441.3	438.8	438.2	437.5	435.1	433.2	431.3	430.1	428.9	427.6
10°	434.4	432.0	428.9	427.6	426.4	423.3	420.8	418.8	416.3	413.9	413.2
12.5°	423.3	419.4	415.7	414.5	412.6	409.5	407.0	403.9	402.1	399.0	398.3
15°	410.1	405.8	402.7	399.6	398.3	395.2	390.9	388.4	384.7	383.4	380.2
17.5°	394.6	390.3	385.9	384.7	382.8	378.5	374.0	370.9	367.2	365.3	363.5
20°	378.5	372.8	368.4	367.2	364.7	361.0	356.6	353.5	350.4	346.7	344.8
22.5°	359.7	353.5	349.8	346.7	346.1	341.7	336.8	334.2	331.7	328.6	326.1
25°	339.3	333.6	329.2	326.7	325.5	321.8	318.0	314.9	311.2	309.4	306.3
27.5°	318.0	314.3	308.7	306.3	304.4	301.3	296.8	295.0	291.3	288.8	286.9
30°	297.6	291.9	288.8	285.7	283.8	280.7	277.0	275.1	272.0	269.5	267.7
32.5°	275.1	271.4	267.0	265.8	263.3	260.2	257.6	254.5	252.0	249.6	248.9
35°	254.5	249.6	245.2	244.0	242.1	239.0	237.8	235.9	232.8	232.2	229.7
37.5°	232.2	229.7	224.7	222.9	222.2	219.8	217.3	215.9	214.1	212.2	211.6
40°	211.0	207.9	205.4	203.5	202.3	200.4	197.9	197.3	196.1	193.6	193.0
42.5°	191.1	188.0	185.5	184.9	183.0	181.2	179.8	178.1	177.3	176.7	175.5
45°	171.8	169.9	167.4	166.8	166.2	163.7	162.4	161.2	160.0	159.3	158.1
47.5°	154.4	152.5	150.6	150.0	148.8	148.2	146.3	145.7	143.8	143.2	142.6
50°	137.5	136.3	135.0	134.4	133.2	132.5	131.3	130.1	128.8	128.2	127.6
52.5°	122.6	121.4	120.1	119.5	118.9	117.6	116.4	115.2	114.5	113.9	113.3
55°	108.3	107.1	106.5	105.8	105.2	104.6	102.7	102.1	101.5	100.9	99.5
57.5°	95.2	93.9	92.7	92.7	92.1	91.5	90.2	89.0	89.0	87.7	86.5
60°	83.4	82.2	80.9	80.3	79.7	78.4	77.8	77.2	76.6	75.9	74.7
62.5°	71.0	70.4	69.1	69.1	67.9	67.3	66.6	66.0	65.4	64.1	63.5
65°	60.3	59.8	58.6	57.8	57.8	57.2	56.0	55.4	54.7	54.7	54.1
67.5°	50.4	49.8	48.5	47.9	47.9	47.3	46.7	46.7	46.0	45.4	46.0
70°	41.7	40.5	40.5	39.8	39.8	39.2	38.6	38.6	38.6	39.2	39.2
72.5°	33.0	32.4	31.8	31.8	31.8	31.8	31.1	31.1	31.8	32.4	32.4
75°	26.2	25.6	25.6	25.6	24.9	24.9	25.6	25.6	26.2	26.2	26.2
77.5°	19.2	19.2	19.2	19.2	19.2	19.2	20.0	20.0	20.6	20.6	20.6
80°	14.3	14.3	14.3	14.3	14.3	14.9	14.9	14.9	14.9	14.9	15.5
82.5°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	10.6	10.6	10.6	10.6
85°	5.6	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8
2.5°	449.3	449.3	449.3	450.0	448.7	448.7	448.7	448.7
5°	438.8	438.2	437.5	438.2	436.9	436.9	436.3	436.3
7.5°	425.8	425.1	424.5	424.5	423.3	423.3	422.6	422.0
10°	411.4	410.1	410.8	409.5	408.9	408.3	407.6	407.0
12.5°	395.9	394.6	394.0	392.7	391.5	390.9	391.5	390.3
15°	379.1	377.1	376.5	375.3	374.0	373.4	373.4	372.8
17.5°	360.4	359.1	358.5	357.3	356.6	355.4	354.8	354.2
20°	343.0	339.9	340.5	339.3	338.5	336.2	336.2	336.8
22.5°	323.6	321.8	320.5	319.3	318.7	317.4	317.4	316.8
25°	304.4	302.5	301.9	300.7	299.9	298.8	298.2	298.2
27.5°	285.7	283.2	283.2	281.9	280.7	280.1	279.5	278.8
30°	265.8	263.9	263.3	263.3	262.7	262.7	260.7	261.5
32.5°	247.1	245.8	245.2	244.0	244.0	243.3	243.3	241.5
35°	228.4	226.6	227.2	226.0	225.3	224.7	225.3	224.7
37.5°	210.3	209.1	209.1	207.9	207.9	207.2	206.6	207.9
40°	192.3	191.7	191.1	190.5	191.1	190.5	189.2	189.9
42.5°	174.2	174.2	173.6	173.6	173.0	173.0	173.0	173.0
45°	158.1	157.5	157.5	156.9	156.9	156.9	156.9	156.2
47.5°	142.0	141.2	141.2	141.2	140.7	140.7	140.1	140.7
50°	126.3	126.3	125.7	125.7	126.3	125.7	125.1	125.1
52.5°	112.1	112.1	111.4	111.4	110.8	110.2	110.8	110.8
55°	98.9	98.3	97.8	97.8	97.2	96.4	96.4	97.2
57.5°	86.5	85.9	85.3	85.3	84.0	83.4	83.4	83.4
60°	74.7	73.5	73.5	72.8	72.8	72.2	72.2	72.2
62.5°	63.5	62.9	62.9	62.9	62.9	62.3	62.3	62.3
65°	54.1	54.1	54.1	54.7	54.7	55.4	55.4	55.4
67.5°	46.7	47.3	47.3	47.3	47.9	47.9	47.9	47.3
70°	39.8	39.8	39.8	40.5	40.5	40.5	40.5	40.5
72.5°	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
75°	26.2	26.8	26.8	26.8	26.2	26.8	26.8	26.2
77.5°	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
80°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
82.5°	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
85°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)